United States
Department of
Agriculture

**Forest
Service**

June, 2006

Environmental Assessment

Jim's Creek Savanna Restoration Project

Middle Fork Ranger District
Willamette National Forest
Lane County, Oregon

Legal Location: sections 1, 2, 11, and 12, T.24 S, R.3 E. W.M.

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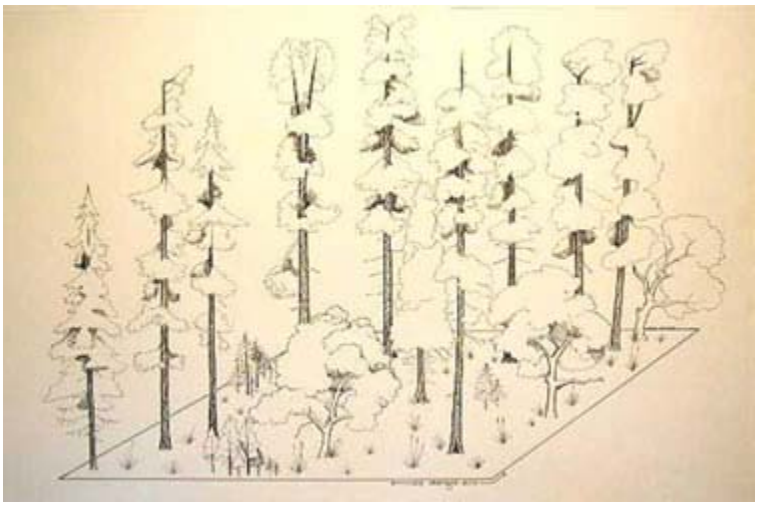
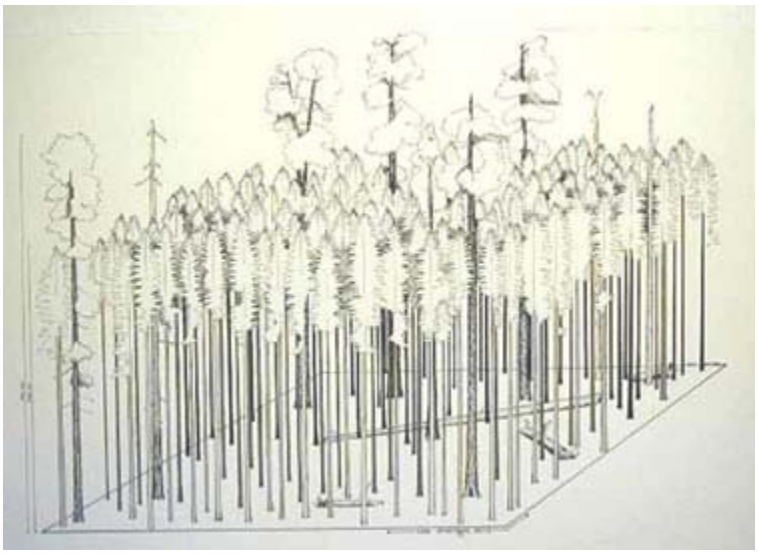
Jim's Creek Savannah Restoration Project

The Jim's Creek Forest ~ Then



100 years ago ~ a savannah…

The Jim' Creek Forest ~ Now



Today ~ a closed canopy forest …

This environmental assessment is dedicated to the memory of Carol Winkler, a tireless team member and prime mover of this effort to restore the historic vegetation.

Carol was the archeologist on the interdisciplinary team and passed away late in the development of this project. Carol was aware sometime ago that this area had changed dramatically. She played an integral role in determining the need for restoration and in conveying the importance of this landscape to both historic and current Native American culture. Carol is sincerely missed.

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Summary

The Willamette National Forest proposes to restore a historic open savanna forest dominated by ponderosa pine, Douglas-fir and Oregon white oak through removal of 100 year old conifer trees that have colonized the area in question subsequent to the commencement of fire suppression. The project area is located in the Hill's Creek Reservoir sixth field watershed which is part of Middle Fork of the Willamette River fifth-field watershed. The project area contains all or portions of sections 1, 2, 11, and 12, T. 24 S., R. 3 E., Willamette Meridian. The project area contains approximately 688 acres and is within the Middle Fork Ranger District, Willamette National Forest, Oregon. This action is needed because biodiversity has significantly decreased and ponderosa pine/Oregon white oak vegetation types have become very rare in the Willamette River basin. Without this action this rare vegetation type will be lost to forest succession.

The proposed action would provide habitat to facilitate persistence of a number of open forest dependant plant and animal species, but would also reduce the amount of late-succession, closed canopy forest habitat in the watershed. The proposed action (Alternative A) would treat about 240 acres with a single entry understory thinning and associated fuels reduction through prescribed burning. It also includes various restoration activities, such as oak and native bunchgrass planting, plantation density reduction, meadow encroachment removal, and prescribed underburning to maintain the savanna. The intent of the thinning is to remove all excess trees at the same time. This would provide for the quickest recovery of bunchgrass and oak regeneration and avoid future ground disturbing activities that could damage recovering vegetation and provide additional risk of noxious weed introduction. The open forest type would then be maintained using prescribed fire.

Approximately 90 percent of the younger age class Douglas-fir, grand-fir, and incense cedar would be removed to leave an average of about 20 trees per acre. The largest of the younger age classed trees would be retained, along with all ponderosa pine and sugar pine, regardless of size, (other than those encroaching upon meadows). Since the largest trees are not evenly distributed across the landscape, the distribution of retained trees would be variable and there could be some open areas up to several acres in size. The alternative also includes other restoration activities, as described in the narrative below.

In addition to the proposed action (Alternative A), the Forest Service also evaluated the following alternatives:

- Alternative B – No Action;
- Alternative C – Staged excess tree removal- on 171 acres;

- Alternative D – Multiple prescription approach- on a total of 171 acres;
- Alternative E – Full restoration – on 455 acres

All the action alternatives provide for some amount of restoration of this important and rare habitat, in compliance with the purpose and need statement, commensurate with the number of acres treated. Alternative C, and to some extent D, do not remove enough trees initially to have many immediate restorative effects. None of the action alternatives would affect stream temperatures or increase peak stream flows. All the action alternatives present a risk of soil erosion, due primarily to the prescribed burning to reduce fuel loading after excess tree removal, and there is some risk for that erosion to enter stream channels and increase stream turbidity. All action alternatives involve some permanent removal of currently suitable northern spotted owl habitat and would reduce the amount of suitable owl habitat within one activity center to less than 40 percent. All action alternatives would reduce fuel loading and eliminate the potential for a stand replacing wild fire. Alternatives A, D and E can be implemented with a positive present net value (PNV). Both Alternatives B and C would result in a negative PNV.

Based upon the effects of the alternatives, the responsible official will decide whether restoration of this former savanna forest is needed, and if so, what alternative to implement in order to best facilitate restoration of this important vegetation type.